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## ABSTRACT

Some implications of the Southern Survey of Agricultural Majors for the training of agricultural professionals are examined. Women agricultural majors were found to be playing a role in the recent growth in enrollment. Females were found to be less likely than male students to have parents who own farms. It is claimed that agricultural education in the university is losing its rural tradition, and the female student is a key actor in the process. The desire to work with animals or some equivalent orientation seems to be an important career motivation for many women students. For both men and women in the study, there seems to be a strong emphasis for the desirability of rural residence and rural lifestyle associated with the selection of agriculture. The survey also includes information about the sex-role attitudes of the students, which may have an impact on colleges of agriculture. This new enrollment of women will place demands for changes in curriculum, counseling, and placement. Changes affecting higher education in agriculture are discussed in terms of a particularistic versus a generalistic agenda of learning. (SW)

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# THE SOUTHERN SURVEY OF AGRICULTURAL MAJORS; SOME IMPLICATIONS FOR THE FUTURE OF HIGHER EDUCATION IN AGRICULTURE

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Following the lead of Dr. Lee Coleman, I would like to convey my very sincere appreciations to the Deans of Instruction and especially to the Southern Deans for the excellent leadership, assistance and cooperation in the conduct of the Southern Survey of Agriculture Majors. Any successes that we may have experienced in this research are due in no small part to the many contributions of this group. It should also be noted that this spirit of cooperation was also shared by the student body of agricultural majors as reflected in the high response rate that was achieved. As you know from Dean Robertsons's comments about 75% of the students returned forms--an unusually high response rate for a mailed questionnaire. It is my sincere hope that the findings from this study will in some way benefit the agricultural students and deans who have been so generous with their time.

In my comments today, I have elected to go beyond the presentation of descriptive information from the study and speculate on the implications of these findings for the training of agricultural professionals. Dr. Coleman's extensive report on the basic characteristics of agricultural majors serves as an excellent point of departure for my comments. Although I am starting with this empirical base of social facts, a cautionary caveat is necessary. The comments are highly speculative since they will involve my guesses as to some possible implications and consequences of the recent dramatic changes in the enrollment in agriculture. Please be aware that I am truly cognizant that this is an exercise in prediction and interpretation and that time will be the true test of the merits of the discussion.

To the sociologists, the Colleges of Agriculture represent social laboratories for studying an occupational grouping that seems to be undergoing a rapid and fundamental change in its composition. More to the point, they offer an opportunity to study certain aspects of the structure of the agricultural profession: how it recruits its members; how it socializes them into the profession; how they are placed and rewarded; what activities are seen as having prestige; and what stresses are placed on the system of professionals. There are many points of research intervention to study these processes. The Colleges of Agriculture are especially strategic since they represent the primary socializing agent for agricultural professionals. By examining the characteristics, attitudes, and ambitions of these students, we can gain important insights not only into the socializing and training structure of present-day agriculture, but also a glimpse of what agriculture may be in the future.

Perhaps the most striking initial reaction to the survey was the role that women majors are playing in the recent growth in enrollment. Of course, it is well known that nationally approximately 30% of present enrollments are women students and that much of the growth in agricultural education in this decade can be attributed to women electing to enter Colleges of Agriculture. What we now know from the Southern Survey is that the women segment of the

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student body is not merely a female carbon copy of the traditional agricultural student. Women students represent some very fundamental changes in the character of agricultural enrollment along a number of important dimensions other than sex. Among these differences are that women tend to be younger and single. They are less likely to have children and are three times less likely than their male counterparts to want children in the future. They are considerably less likely to have parents who own farms. Their parents tend to have slightly higher levels of income and education. And they, as their parents, are more apt than male students to hold moderate and liberal political views. And to warm the hearts of Deans of Instruction, they are more likely to have made superior grades in high school.

It seems clear to me from these findings and others that will follow, that the women agricultural students are leaders in a fundamental process that is moving higher education in agriculture toward massification and amalgamation with general society. Agricultural education in the university is rapidly losing its rural tradition and flavor and the female student is a key actor in the process. Other data from the study tells us that more city-bred students are studying agriculture than are farm-related youth. For example, only about 20% of the students reported that their parents own a farm. At Texas A&M, there are as many students from cities of over 500,000 as there are from farms and ranches. The point is that women are proportionately more responsible for this important shift in student population.

A reasonable question and a critical one for this group of deans is what are the motivations and reasons that suddenly attracted women to agriculture? Unfortunately, the survey produced no clear cut reasons that I can perceive. It only suggests a few possibilities. High school agricultural courses and the influence of high school vocational teachers seemed less influential for women than men. Over 75% of the women had never taken an Agricultural course in high school. In fact, women were more apt to say that a Biological Science course played an influential role in their selection of agriculture. Also there are several bits of data that lead me to believe that there is often some form of "animal affect syndrome" operating. That is, the desire to work with animals, love of animals or some equivalent orientation seems an important career motivation for many women students. This is evident in the fact that women tend to report more often than men that veterinarians influence their choice for agriculture; that women tend to disproportionately enroll in Animal Science and Preveterinarian programs; and that women more often report occupational preferences for the future that reflect the desire to work with animals. I am certain that my presenting this outcome to you is hardly surprising since in the original contact with this group, several deans had indicated this preference among their women students. The survey seems to confirm your observations on this point.

Interestingly, a substantial number of the women in the study said they wanted to enter agricultural production jobs. Dr. Tom Lyson of Clemson University has recently carried out a detailed analysis of the segment of the data and reports that about 15% gave such choices. The most popular types of production agricultural response were: farmers or ranchers, 60%; horse breeders, 20%; managers or foremen, 16%; and other choices, 4%. Of these women who gave preferences for agricultural production work, 50% majored in Animal Science in contrast to only 17% of the non-agricultural production oriented women. Again among this group the "animal affect syndrome" seems to be a strong underlying force.

For both men and women in the study, there seems to be a strong emphasis on the desirability of rural residence and rural life style associated with the selection of Agriculture. Dean H. O. Kunkel at Texas A&M University has examined this data along with other information that he has collected over the years. He believes that our survey may "underestimate a fundamental relationship of agricultural and horticultural roots to the desire for engagement in production agriculture". He suggests that the frame of reference of farming orientations extends beyond residential and parental agriculture and can be transmitted through such experiences as contact with grandparents who farm, summer visits to relative's farms, or even time spent in a riding stable. Thus, the orientations of many students may result from a mental equation that substitutes non-farming agricultural occupations as the closest possible approximation of actual farming. An earlier study of mine conducted in the late sixties at Mississippi State University generally supports Dean Kunkel's interpretations. It found that the major differences between the occupational desire and expectations of agricultural students was in their desires to farm in contrast to expectations for non-farming enterprises.

It seems that many students are well schooled, "perhaps too well schooled", in the difficulties and obstacles of entering and maintaining a farming operation. I have in mind an aside that may be a little discomfoting. There seems to be an axiom among professors and students that entry into the occupation of farming is limited to those who either inherit land or acquire land through marriage. In fact, the opinion had the status of conventional wisdom in the agricultural community. Admittedly, there is much evidence to support this contention. However, there are many realities. There is the reality of what is and there is the reality of what could be. There is the reality of the market place that indicates the type of farming enterprise that can be successful. We must also remember that there is the reality of the self-fulfilling prophecy that tells us if we believe something to be so it is more apt to be realized. If we in the agricultural colleges agree that entry into farming is restricted to mechanisms of inheritance and marriage then we have gone a long way toward assuming that such a reality will exist. I am certainly not arguing that we suddenly begin telling students that there are great opportunities for them to become farmers. However, I am suggesting the possibility that we have gone too far in the other direction. It is time to ask how desirable and how possible it is to increase the entry into farming. If our answers are in the affirmative, it is time to ask what we can do to influence the process.

The survey also includes a great deal of information about the sex-role attitudes of the students. There were a set of questions inquiring about the perceived appropriateness of given behavior for men and women. To the sociologists, the question produces data that serves as an index of the propensity for sex discrimination--especially in the work place. As might be expected, the male-female contrast of responses reveal great differences in attitudes. The male students were generally more apt to agree that women did not have the same work capacities as men and that limits and restrictions should be placed on their work force participation. For example, 87% of the women strongly agreed that "a woman who does the same work as a man should receive the same pay" whereas only 55% of the men strongly agreed. Similarly, 68% of the women students disagreed that "women simply are not physically and mentally capable of performing as well as men at work outside the home" whereas only 22% of the men strongly disagreed. Over 40% of the women strongly disagree that "most



agricultural occupations are unsuited to women" while only 10% of the men gave such responses. Similar response patterns were found concerning "the husband and wife as equal partners in marriage," "being uncomfortable with women superiors," and "the centrality of the motherhood-parenting role for women." These findings suggest an inherent problem for the placement of women in professional agricultural jobs. It suggests a set of constraints that may have an impact upon the future composition of the agricultural labor force. I would wager, although there is no data available to confirm my suspicions, that the same general pattern in sex-role responses would also be found for many employers and even among professors. Colleges of Agriculture, of course, are not singular institutions in this respect. The pattern of sex-role attitudes found here is not too different from that of general society. It also follows that just as the battle for sexual equality in jobs and incomes has been and is being fought in other sections of the labor force, we can expect the battle to extend at some point into professional agriculture. If this trend does occur in the labor force, I foresee a number of stresses that will be placed on the Colleges of Agriculture.

The points of stress resulting from this new enrollment of women will first confront the deans relative to demands for changes in curriculum, counseling, and placement. The data in the study lead me to believe that women are bringing somewhat different ambitions, desires, values, and political orientations to agriculture that in the long run will result in demands for changes to meet their perceived needs. The potential power that women could exert on the colleges should not be underestimated. In a sense, they are a very volatile group. They came to the Colleges of Agriculture very quickly in large numbers. There is reason to believe that they could leave just as suddenly. When this is considered in light of the current stable or declining enrollment patterns in universities across the nation, their retention is critical for the continuation of educational programs at their present levels.

I also foresee the possibility of the Colleges of Agriculture being placed in a very uncomfortable position between their sizable student body of women and the traditional employers of their graduates. A possible outcome could be that large numbers of women will be unable to be placed through traditional placement procedures and consequently result in a point of considerable dissatisfaction. The Deans of Instruction, who at many universities play a central recruitment role in placing students, may find themselves with women aggressively demanding equal opportunities at the same time Agri-business may be seeking primarily male graduates. Just as in California, where farm workers have taken the University of California to court on the grounds that agricultural research and extension programs of a public institution do not equally serve all the people, it is not unthinkable that women agricultural students might take Colleges of Agriculture to court under the charge that they are not offering equal counseling and placement opportunities for women.

My vision of the future is neither as threatening nor as bleak as the foregoing predictions may seem. From the perspective of equality in society, there is much to be proud of concerning the recent increase of women students in our colleges. There are also a number of opportunities made possible because of this new growth. Dr. Joan Wallace, Assistant Secretary of Agriculture, was scheduled for this hour to speak on "Minorities in Agriculture." Her presentation has been rescheduled for this afternoon. She will undoubtedly point to the severe underrepresentation of Black and Hispanic students enrolled in Colleges of Agriculture

and engaged in Agricultural Occupations. Furthermore, I fully anticipate that she will challenge you to be more aggressive in recruiting these minorities. Since women are, in fact, a special population with problems similar in some way to the more traditional minorities, it can be shown with some pride that the Colleges of Agriculture have made in the decade of the seventies continuing and substantial gains in the enrollment of women students. In many ways we have been more successful with respect to women recruitment than other professional schools such as engineering, law, and medicine. Frankly, I am doubtful that there has been a concerted and concentrated effort to achieve this new enrollment. At the least, however, the Colleges of Agriculture have been very receptive and willing to admit women to their ranks.

At a more fundamental level, the rapid increases in student enrollments combined with the dramatic shift in the composition of the student body has resulted in the Colleges of Agriculture being subject to new and dynamic forces. A dynamic situation, with all its uncertainties, allows greater room for experimentation, invention, and creativity. As key leaders, Deans of Agriculture are currently in an environment which has an unusual opportunity for redirecting, altering, and reshaping the very substance, the core, of what higher education in Agriculture is and what it will be.

In my mind, the critical philosophical battle is being and will be fought along the lines of a particularistic versus a generalistic agenda of learning. It is a debate that is also being waged within the research and extension components of the land grant triumvirate. By particularistic, I mean the philosophical position that Colleges of Agriculture should primarily pursue the traditional focus of knowledge and skills needed for production agriculture. The emphasis is on a focused approach with somewhat bracketed ambitions and responsibilities. By generalistic, I mean the philosophical position of expanding and broadening the scope of higher education in agriculture to include many endeavors not normally identified with the domain of agriculture. Such societal concerns as human nutrition, health, development, environment, energy, consumer studies, and urban agriculture represent some examples of issues that may move to the forefront.

Either a particularistic or generalistic resolution involves sets of opportunities and responsibilities--sets of benefits and risks. The particularistic path should lead to further addition and refinement of agricultural knowledge. It services and contributes to an established agricultural production and agri-business constituency from which in turn it receives support. On the surface, it appears a conservative and solid strategy for the continued advancement of agriculture. Its risks, however, are many. Foremost among these are the proportionately decreasing size of the production constituency and very real possibility of decreasing influence of this constituency on government. The United States is largely an urban-dominated society and even the well-publicized rural-urban turnabout has more to do with preferences for rural residence and lifestyles than with production agriculture. No less important, the Colleges of Agriculture are populated with students many of whom have ambitions and career opportunities outside of the sphere of the particularistic path.

On the other hand, the generalistic approach is also problematic but with different opportunities and risks. It begins with the core of agriculture production and attempts to expand educational programs to service new population and to develop new constituencies. Its chief advantages lie in the possibility for greater contributions to the needs of society and in the possibility of servicing a broader constituency. In this sense it is logically in line with both societal growth, globally and with the current dynamics of student increases, specifically. The risks, however, are also considerable for this path. Ultimately, Colleges of Agriculture, given even the unique applied nature of their educational programs, cannot address everything. Thus, there must be limits to the generalizing approach. Unfortunately, the exact realm of a generalized College of Agriculture has not been established and is somewhat difficult to visualize. Furthermore, it may be more difficult to capture the support of these new constituencies and once captured it is not clear that this support can be maintained easily in the long run.

In closing I would like to emphasize one point, the new agriculture student is a major actor in the debate between a particularistic and generalistic trends in agricultural higher education. As a sociologist, I find it one of the more interesting and important issues to study. Colleges of Agriculture are extremely significant institutions for the decisions and directions they take impact so greatly on the welfare of not only the United States but also the world. I thank you for tolerating my wild speculations and look forward to a continuing interaction with this fine group.